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09/499,819	02/08/2000	Sivaramakrishna Kuditipudi	FORE-57	1785

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EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2142

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/499,819

**Applicant(s)**

KUDITIPUDI ET AL.

**Examiner**

Douglas B Blair

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,10-14,17-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,10-14,17-23 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Claims 1, 4-5, 10-14, 17-23 and 25 are now pending in this action.

***Request for Information***

2. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.
3. It is requested that information be provided regarding the Fore-Switch-MIB module. All information regarding the features, operation, use, distribution, and sale of this module is requested.
4. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.
5. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4-5, 10-14, 17-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the paper "Automatic Topology Discovery and Virtual Connection Trace for ATM Networks Using SNMP" by Lin et al. in view of the Fore-Switch-MIB Definitions paper.

8. As to claim 1, Lin teaches a switch of a network comprising: a topology database having configuration information, the configuration information including an IP address (Section 2); and a mechanism for sending the configuration from the topology database to the network and for receiving configuration information from the network and storing it in the topology database, the sending and receiving mechanism include a switch agent for receiving configuration information from the network, the switch agent looks up in the topology database and returns requested information of an SNMP query from the network (Section 2); however, Lin does not explicitly teach configuration including the name of the switch, a software version, and a hardware type.

The Fore-Switch-MIB Definitions paper teaches configuration information including the name of the switch, a software version, and a hardware type (See MIB Groups).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Lin regarding the topology discovery with the teachings of the Fore-Switch-MIB Definitions paper regarding specific configuration

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information with in the management information base because the teachings of Lin specifically suggest the teachings of the Fore-Switch-MIB Definitions paper.

9. As to claim 4, Lin teaches a switch wherein the switch agent forms an SNMP query to the network (See Title).

10. As to claim 5, Lin teaches a switch wherein the topology database has all configuration information of the network (Section 2).

11. As to claim 10, Linr teaches a switch wherein the configuration information includes a unique ID of the switch (Section 2).

12. As to claim 11, the Fore-Switch-MIB Definitions paper teaches a switch wherein the configuration information includes a remote node index of the switch (See MIB Groups).

13. As to claim 12, the Fore-Switch-MIB Definitions paper teaches a switch wherein the configuration information includes nodal flags of the switch (See MIB Groups).

14. As to claim 13, Lin teaches a switch wherein the configuration information includes an interface name for the address of the switch (Section 2).

15. As to claim 14, Lin teaches a telecommunications system comprising: S switches, where S is an integer greater than or equal to 2, each switch having topology database with all configuration information of the S switches, any one switch providing all the configuration information for all of the S switches, the configuration information includes an IP address, wherein the switches send configuration information to each other, and the switches send and return queries to each other (Section 2); however; Lin does not explicitly teach configuration including a switch name, a software version, and a hardware type or the use of an SNMP query. The Fore-Switch-MIB Definitions paper teaches these features as described in the rejection of

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claim 1. For reasons discussed in the rejection of claim 1, it would be obvious to combine Dacier with the Fore-Switch-MIB Definitions paper.

16. As to claim 17, Lin teaches a system wherein the switches attach a systems information group to a nodal information group to propagate the configuration information to the other switches in response to tan SNMP query (Section 2).

17. As to claim 22, Lin teaches a method for operating a telecommunications network comprising the steps of: placing configuration information of a first switch of the network into a topology database of the first switch, the configuration information includes an IP address of the switch; sending an SNMP query from the second switch to the first switch for configuration information in the topology database of the first switch; and propagating the configuration information of the first switch to a second switch of the network (Section 2); however, Lin does not explicitly teach configuration including the name of the switch, a software version, and a hardware type.

The Fore-Switch-MIB Definitions paper teaches configuration information including the name of the switch, a software version, and a hardware type (See MIB Groups).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Lin regarding the topology discovery with the teachings of the Fore-Switch-MIB Definitions paper regarding specific configuration information with in the management information base because the teachings of Lin specifically suggest the teachings of the Fore-Switch-MIB Definitions paper.

18. Claims 18-21, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the paper "Automatic Topology Discovery and Virtual Connection Trace for ATM Networks

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Using SNMP” by Lin et al. in view of the Fore-Switch-MIB Definitions paper in further view of U.S. Patent Number 6,487,204 to Dacier et al..

19. As to claim 18, the Lin-Fore-Switch-MIB combination renders claim 17 obvious; however the Lin-Fore-Switch-MIB combination does not explicitly teach a system wherein the switches have one or more logical nodes

Dacier teaches a system wherein the switches have one or more logical nodes (col. 3, lines 3-37).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Lin-Fore-Switch-MIB combination regarding topology discovery with the teachings of Dacier regarding the propagation of switch configuration information because such information is important for efficient routing (Dacier, col. 1, lines 24-36).

20. As to claim 19, Dacier teaches a system wherein the nodes form a first PNNI peer group (col. 3, lines 3-37).

21. As to claim 20, Dacier teaches a system including a plurality of PNNI peer groups (col. 3, lines 3-37).

22. As to claim 21, Dacier teaches a system wherein any node of the first PNNI peer group can provide all the configuration information for the first PNNI peer group (col. 3, lines 55-67 and col. 4, lines 1-13).

23. As to claim 23, the Lin-Fore-Switch-MIB combination renders claim 22 obvious; however the Lin-Fore-Switch-MIB combination does not explicitly teach a method wherein the first and second switches are in a PNNI peer group, and after the propagating step, there is the

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step of retrieving configuration information for all the switches in the PNNI peer group from the first switch

24. Dacier teaches a method wherein the first and second switches are in a PNNI peer group, and after the propagating step, there is the step of retrieving configuration information for all the switches in the PNNI peer group from the first switch (col. 3, lines 55-67 and col. 4, lines 1-13, By “flooding” any node can provide configuration information to any other node.).

25. It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of the Lin-Fore-Switch-MIB combination regarding topology discovery with the teachings of Dacier regarding the propagation of switch configuration information because such information is important for efficient routing (Dacier, col. 1, lines 24-36).

26. As to claim 25, Dacier teaches a method wherein a propagating step includes the steps of attaching a system information group having the configuration information from the topology database of a first switch requested by a query to a nodal information group (col. 3, lines 3-37, Figure 2 shows how configuration information can be propagated from an information group to a nodal information group.); and propagating the system information group attached to the nodal information group to the second switch (col. 3, lines 3-37, Figure 2 shows how configuration information can be propagated from an information group to a nodal information group.).

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1, 4-5, 10-14, 17-23 and 25 have been considered but are moot in view of the new ground(s) of rejection.



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*Conclusion*

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B Blair whose telephone number is 703-305-5267. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached at 703-305-9705. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.

Douglas Blair  
January 9, 2004

*DBB*

*Jack Harvey*  
JACK B. HARVEY  
SUPERVISORY PATENT EXAMINER